

Photo by David Higginbotham/ Marshall Center

Marshall Center Director David King makes a point while discussing how Marshall's capabilities align with NASA's mission.

King says Marshall is integral part of NASA's mission

By Patricia Dedrick Lloyd

Marshall Center Director David King told team members Monday that the Vision for Space Exploration outlined last year by President Bush is well underway and making great progress.

King held a Director's Update in Morris Auditorium following an overview of the Agency's fiscal year 2006 budget by NASA Administrator Sean O'Keefe. Administrator O'Keefe said NASA's budget increase is tied directly to the Vision for Space Exploration.

The Vision represents a bolder framework for exploring the solar system. The Vision remains an "Administration priority in a challenging budget environment," King said. At the same time, Marshall remains focused on safely returning the Space Shuttle to flight, completing the International Space Station, doing a superior job executing the Center's programs, growing core business and improving the Center's competitive posture. He said Marshall is "integral to NASA's mission."

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NASA budget enables new age of space exploration

Editor's Note: The following is a statement by NASA Administrator Sean O'Keefe about the Bush Administration's fiscal year 2006 budget proposal and the Vision for Space Exploration.

The fiscal 2006 NASA budget reaffirms the President's commitment to the Vision for Space Exploration and provides us the next step in implementing it. The exploration Vision provides a historic opportunity to focus NASA for the long term, and the process is well under way. We are transforming NASA and making great progress.

We at NASA have embedded a safety culture that both embraces competition - to bring out the best ideas from industry, universities and NASA centers -- and seeks innovation, to find the best solutions to technical and management chal-

lenges. We have enhanced our long-range planning to improve our decision-making, and we have built a sound management foundation, based on the President's Management Agenda, to streamline our corporate structure and invigorate our field centers.

The preparations for returning the Shuttle fleet to flight are continuing. On the International Space Station, we are in our fifth year of continuous presence on orbit. Our programs to explore the solar system continue to amaze us with the new and unexpected information returned from Mars, Saturn's moon Titan and other distant points in the universe.

We are laying the groundwork for future exploration by beginning the design competition for the Crew Exploration Vehicle, which will have flight demonstrations in 2008. Building blocks are being placed to return astronauts to the moon.

We have awarded more than 100 contracts for exploration technologies, based on 600 proposals and 5000 letters of interest. The more than 17 billion hits to our NASA Web site are a testament to the intense, world-wide public interest in our activities.

The Vision for Space Exploration remains an Administration priority even in this challenging budget environment. The continued priority for and support of exploration has enabled a gradually growing NASA budget over the next five years. The budget maintains resolute focus on exploration priorities and critical milestones, based on our science priorities.

The budget supports critical national needs and revolutionary technologies. In our Aeronautics Mission Directorate, it protects aviation safety, security and airspace systems activities. It restructures vehicle systems work to focus on technol-

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McGrath named deputy director of Science, Technology Directorate



McGrath

By Rick Smith

Dr. Melissa Ann McGrath has been appointed deputy director of the Science and Technology Directorate at NASA's Marshall Center.

McGrath, a former astronomer at the Space Telescope Science Institute in Baltimore, supports Dr. Ann Whitaker, director of Marshall's Science and Technology Directorate, in managing operations and business planning for the organization, and helps oversee all Earth and space science activities at the Marshall Center.

The directorate studies new technologies for investigating other worlds -- the core of the Vision for Space Exploration, which seeks to extend human reach throughout the Solar System. In her new role, McGrath helps oversee the research efforts of nearly 450 civil servant and contractor employees, who perform a range of research and test activities in fields including Earth science, space science, optics, advanced propulsion and materials science.

"Dr. McGrath's distinguished career in astronomy and her

exhaustive pursuit of knowledge about worlds beyond our own make her invaluable to our team," Whitaker said. "Her appointment will increase the Marshall Center's esteem across the science community -- and will help ensure our successful pursuit of NASA's mission."

McGrath joined NASA in January 2005, after 12 years at the Space Telescope Science Institute, the non-profit science operations center for the Hubble Space Telescope -- the first of NASA's Great Observatories, launched in 1990. Most recently, McGrath was manager of the Institute's Community Missions Office, overseeing contracts and developing new business ventures.

A native of Grand Island, Neb., McGrath earned a bachelor's degree in 1977 in astronomy and physics from Mount Holyoke College in South Hadley, Mass. She earned a master's degree in 1984 and a doctorate in 1987 -- both in astronomy -- from the University of Virginia in Charlottesville.

McGrath joined the Space Telescope Science Institute in 1992. She managed Hubble science teams and other researchers from 1993 to 1997 as chief of the Institute's Science Planning Branch. As systems integration manager from 2000 to 2001, she developed new business and managed projects such as NASA's Kepler Discovery mission, expected to launch in 2007 to search for Earth-like planets around distant stars.

The writer, an ASRI employee, supports the Public Affairs Office.

2004 Contractor Excellence Award winners named

By Grant Thompson

NASA's Marshall Center has honored three aerospace companies with 2004 Contractor Excellence Awards -- recognizing their contributions to the Marshall Center and NASA's mission of human spaceflight.

ATK Thiokol Propulsion of Brigham City, Utah, is the winner of the large business-product honor; Teledyne Brown Engineering, Inc. of Huntsville received the large business-service award; and Hernandez Engineering, Inc. of Huntsville was recognized in the small business-service category.

"These companies have a vital role with Marshall in achieving NASA's goal of safe human spaceflight," said Marshall Center Director David King. "Their contributions are helping us fulfill the Vision for Space Exploration, and inspiring the next generation of space explorers." The Vision calls

for Space Shuttles to return to safe flight to complete the International Space Station, and for human and robotic exploration of the Solar System.

ATK Thiokol supplies the massive, reusable solid rocket motors that are part of the solid rocket booster assemblies, the two silo-shaped rockets on each side of the Space Shuttle on every Shuttle flight. The company was cited by the Marshall Center for reducing the motor cycle time -- the period to prepare the rocket motors for re-use -- by 25 percent over the life of the contract and for saving \$16.8 million by restructuring and improving personnel and resource management programs. ATK Thiokol won this award in 2004 for similar contract performance in 2003.

Teledyne Brown Engineering performs payload integration -- scheduling and coordinating payloads or cargo -- for the International Space Station; provides service and support for the operation and

maintenance of propellants and other hardware; and furnishes engineering, analytical and integration support to Marshall. Teledyne Brown's award credits the company for saving \$15 million in the past four years by controlling overall costs, and for its continuing commitment to safety and quality assurance.

Hernandez Engineering supports Marshall's Safety and Mission Assurance Directorate -- the organization responsible for the safety, reliability and quality assurance operations of Marshall Center programs. Company personnel served as team members on the investigation into the loss of Columbia and developed electronic data systems to replace directorate paper records and manuals. The data systems resulted in a 5 percent cost savings for the organization.

The writer, an ASRI employee, supports the Public Affairs Office.

King

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King said that Marshall is fixed on a solid foundation for the future.

Because Marshall is one of the few NASA centers with the capability to take a project from concept development to flight operations, it will be integral to NASA's future missions, King said. Several areas at Marshall directly support the Vision, including transportation systems and propulsion, large complex systems development and integration, space infrastructure development, applied materials and manufacturing processes development; and scientific spacecraft research and instrument development.

King also talked about work underway to transform NASA and about how Marshall plans to transform itself. "The vision for transforming the Agency is a good one," King said. "I believe it is for the better. I think we have a long-term vision now that is sustainable. That is a key for each of us."

Referring to the Center's own transformation, King pointed out that when several of the Center's large programs were significantly reduced over the past year, Marshall's program-specific work decreased. As smaller programs also end, additional strains are being placed on center resources, King said, making Marshall less competitive. Reshaping the workforce would increase its competitiveness, he said.

Over the next 18 months, Marshall will pursue several initiatives:

- Seeking additional business opportunities with new customers;
- Tightening its belts – making necessary, but difficult choices on mission support spending;
- Offering buyouts and early outs; and
- Reassigning personnel to funded positions at other centers.

King said Marshall must actively address those initiatives to complete its realignment by fiscal year 2007 and "avoid directed reassignments and other undesirable workforce actions." Marshall is seeking to appropriately balance its workforce by assuring proper skill sets for present and future requirements and by determining the right mixes of civil service and contractors, he added.

King also said NASA is transitioning to a competitive system of awarding projects that may be difficult at times. "In this environment, Marshall is focused on integration of our capability and processes to ensure we are positioned to be a strong competitor," he said.

"There is over three billion dollars worth of work open for competition over the next two years. That is our target," King said. "That is what we will go after in a very compelling way."

"During this period of transition and change, we must not lose focus on performing our current assignments in an outstanding manner. Returning the Space Shuttle to safe flight is our priority," King said.

The writer, an ASRI employee, is the Marshall Star editor.

O'Keefe

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ogy breakthroughs and near-term demonstrations.

The President's fiscal 2006 budget request for the Science Mission Directorate builds on our recent scientific successes and projects a 23 percent increase in the total science budget by 2010. The budget proposal maintains investments in next-generation Earth-observing satellites to support our climate research efforts. In our education endeavors, the budget allows us to continue to inspire the next generation of explorers with programs such as explorer schools and scholarships for service.

For the Exploration Systems Mission Directorate, the request includes an 18 percent increase. The budget supports exploration systems' research and technology to enable designs for sustainable exploration; funding for Project Prometheus to test a nuclear reactor in 2008 and fly a demonstration mission within a decade; and more than \$800 million for human systems research and technology, directly linked to exploration requirements for human missions to the moon and beyond.

The budget proposal maintains the return-to-flight of the Space Shuttle fleet as our top priority, and it includes close to \$2 billion for the Space Station. This level of funding will enable NASA to meet obligations to international partners. NASA will also proceed with plans to retire the Shuttle in 2010, while ensuring safe missions for the life of the fleet.

The fiscal 2006 budget assumes an ongoing effort to retool our

institution based on best achieving our priorities for the Vision for Space Exploration. This will require adjustments to workforce skill distribution, physical capital, facilities and innovations in management structure. The end result will transform NASA field centers for the coming decade through improved agility and competitiveness.

The sustainable implementation of the Vision will provide our legacy to future generations. With this budget, the torch is passed from the pioneers, who first took us to the moon, to their heirs, who will take us into deep space to stay.



Chitwood speaks at Marshall Association

Marshall Center Deputy Director Charles Chitwood addresses a large crowd last week during the Marshall Association Luncheon.

Seminars offered during Engineers Week

Marshall Center employees are invited to two free seminars on Feb. 25 as part of National Engineers Week.

"The Engineering Valley Tour" seminars will focus on Adobe's Acrobat 7 and its capabilities in engineering, architecture and construction. The seminars will also interest employees involved in archival work and knowledge management.

The first seminar will be from 8 a.m. until noon in Morris Auditorium. The next is from 1:30 - 5:30 p.m. at the Marshall Institute in Madison. Register at www.neiweb.org or call the New Economy Institute at 1-866-221-5872.

The Tri-Lateral Alliance and NEI are partnering with major national software companies to provide the seminars to the technical community in the Tennessee Valley Corridor. The Tri-Lateral Alliance enables NASA, the Department of Defense and the Department of Energy to work collaboratively on areas of mutual interest. Other NEI partners are Adobe, Bentley and Layton Graphics.

Each seminar participant will receive a DVD with detailed information on the topics covered during the seminar, including many 3-D application examples.

Tom Carson, NEI director of curriculum development, said the seminars will introduce employees to some revolutionary changes in engineering. One such change includes placing 3-D rendering of engineering models in Portable Document Format (PDF) where the files can be viewed, rotated and animated with the free Adobe reader. During both seminars, Carson will demonstrate the capability using a 3-D PDF of a jet engine that he will start, rotate and disassemble.

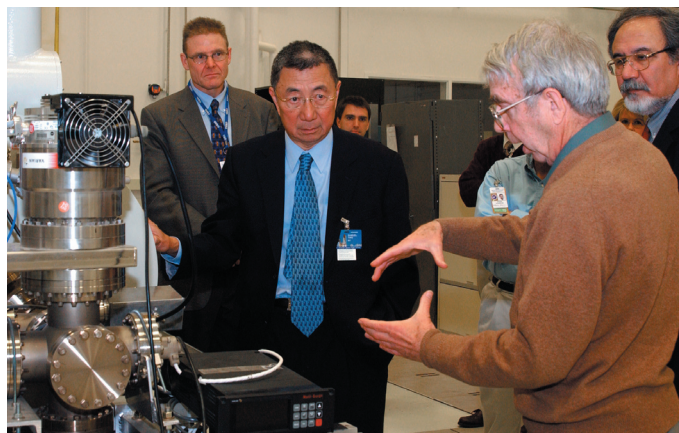
Seminar participants will also learn more about the capability to include documents from a variety of formats into a single presentation. The capability now exists to convert any program with a print command into PDF.

"We have used this capability to convert 44 years' worth of *Marshall Star* newspapers into text-searchable documents. We can search thousands of pages in seconds," said Mike Wright, the Marshall Center historian. The history team at Marshall also has transformed many other documents into hard copy to the new format.

"Dr. Wernher von Braun kept a daily journal when he served as the first director of the Marshall Center from 1960 until 1970. We will soon have the capability to do full-text searches on his journals, as well as on hundreds of other documents," said Steve Durham, supervisor of the Internal Communications Office at Marshall.

"Our mission is to ensure that there is a readily available technical and entrepreneurially inclined workforce for the federal labs and the private sector," said NEI Executive Director Dr. Greg Sedrick.

Nobel Laureate visits the Marshall Center



Massachusetts Institute of Technology Professor Dr. Samuel Ting, center, listens as Dr. Ray Lewis, in foreground, describes the vacuum system of the High Performance Anti-matter trap. Dr. George Schmidt, at left, supervisor of the Propulsion Research Center, and Dr. Samim Anghaie, far right, director of Innovative Nuclear Space Power Propulsion Institute at the University of Florida, look on. Ting, a 1976 Nobel Prize winner in physics, and Anghaie visited Marshall Friday.



Photos by Emmett Given/ Marshall Center

Dr. Gerald Fishman, left, shows Dr. Samuel Ting the spare module of the Burst and Transient Source Experiment or, BATSE, which flew on the Gamma Ray Observatory from 1991-2000 and made pioneering observations of cosmic gamma ray bursts.

Medical Center screens blood pressure from noon to 3 p.m.

February is Heart Health Month and the Marshall Center is offering blood pressure screenings for all employees. The Medical Center will check blood pressure any workday from noon to 3 p.m.

Announcements

Black History Month celebration set for Thursday

TEAM Redstone will celebrate Black History Month with a program commemorating the 100th anniversary of The Niagara Movement at 9:30 a.m., Thursday, at the Sparkman Center on Redstone Arsenal.

The Niagara Movement was the first significant black organized protest movement of the 20th century. Guests include Lisa Washington, NewsChannel 19 anchor, and performers from the Aeolians of Oakwood College.

The Second Annual "Taste of Soul" Food Festival will immediately follow.

Earth Day 2005 logo and photo contests under way

The Marshall Center Environmental Excellence Team is sponsoring two contests to celebrate Earth Day 2005. The logo and photo contests are open to all Marshall employees and contractors. This year's Earth Day slogan is "Sustain, You Have the Ability."

Original artwork logos must be submitted on 8.5-by-11-inch white paper with no more than four colors. The deadline for submission is Feb. 25. Photography submissions must be original 5-by-7-inch prints or digital photographs that showcase Redstone Arsenal's natural environment. Submissions may be black and white or color. Entry deadline for photos is March 31. Send all entries to Ben Morrow, Bldg. 4200, Room G-11/M. See "Inside Marshall" for complete contest rules.

Fashion designers' show to benefit American Cancer Society

The Huntsville Council of Fashion Designers, Inc. will present the Designers Against Breast Cancer 10th Anniversary Runway Fashion Extravaganza on Feb. 26. The event begins with a reception at 6 p.m. at the Huntsville Marriott and will feature fashions, food, exhibits and a silent auction. Proceeds will benefit the American Cancer Society. Call 858-2397 to purchase tickets.

Chemical Engineers chapter to meet Feb. 17 in Decatur

The American Institute of Chemical Engineers will hold a dinner meeting at 6 p.m. Feb. 17 at Mando's Italian Restaurant, 1416 6th Ave. S.W. in Decatur. Craig F. Moyer of Hershey Foods Corp. will give a lighthearted talk about the chemistry, physics and mechanics of manufacturing Hershey's Kisses. Call Janie Miernik at 544-6534 for reservations.

Retired Federal Employees association to meet Saturday

The National Association of Retired Federal Employees will meet at 9:30 a.m. Saturday at the Senior Center on Drake Avenue. Ernest Williams, the chapter's service officer, will discuss 2005 income tax changes. Call 881-4944 for more information.

AIAA, AATA chapters offer college scholarships

The American Institute of Aeronautics and Astronautics and the Alabama Aerospace Teachers' Association will award three engineering scholarships for 2005 to graduating high school seniors interested in pursuing degrees in engineering or related fields. The scholarship amounts are \$500, \$1,000 and \$1,500. For an application, go to www.aata.net

Severe Weather Awareness Week is Feb. 13-18

Several educational activities and drills will be conducted during Severe Weather Awareness Week, Feb. 13-18, to help people prevent injuries or deaths that result from severe weather. For more information, go to www.srh.noaa.gov/hun

NASA College Scholarship applications now available

The NASA College Scholarship Fund, Inc. is now accepting applications from dependants of NASA employees or retirees who are pursuing a college degree in science or engineering. The application deadline is March 21. For more information and an application, go to <http://nasapeople.nasa.gov/nasascholarship/index.htm>. or call Bill Mayo at 544-7220.

Panoply volunteers needed

Anyone interested in volunteering for Panoply, a Huntsville-region arts festival held in April, may contact Rusty Wilkerson at rwilkerson@panoply.org or at 519-2787.

Classified Ads

Miscellaneous

Brass chandelier and matching flush light fixture, \$20; antique anniversary clock, \$20. 837-1774

Nokia 5180i cell phone, batteries, chargers, \$65; R215-60-R16 tire, 10/32 tread, \$25; steel ramps, \$20. 256-503-8040

Body-Gard over-the-rail bedliner, fits Nissan Frontier x-cab & others, \$175. 256-881-0755

Yanmar tractor, 30HP, 5' bush hog, 5' finish mower, \$3,400. 353-3229

97-04 Jeep Wrangler TJ insta-trunk for lockable storage, gray carpet on top, \$90. 353-9891

Breezy 510 wheelchair, \$400. 256-722-8086 after 4 p.m.

"The Greatest Hits" CD by Nat King Cole, played once, \$11. 461-8369

White toddler sleigh bed, \$45; queen mission headboard, \$70. 655-6293

Lauren's stainless potato ricer, \$18; set of New Zealand bowls game, \$25. 837-6776

Wedding dress/veil, ivory satin & beading, size 8, \$150; computer desk, drawers, shelves, \$150. 776-9165

Diamond solitaire ring, .25 carat, \$100; diamond cluster heart-shaped ring, \$125. 683-1279

Murray lawn tractor, 12.5HP, w/42" cutting deck and bagger, \$425. 830-5939

HPS Hydroponic grow light w/ballast, 430W, \$100. 931-138-2876

Track drafting machine, \$60. 430-3413

Electric stove, drop-in, almond, functional, \$25. 885-1640

Sears Kenmore dryer, large capacity, works, will deliver, \$50. 895-9520/Philip

Johnson electric guitar, bag, strap, \$125; Stellar electric guitar, Les Paul copy, \$150. 256-961-9307

Hot tub, outdoor type, 5'x7', seats 4/5, \$1,200. 882-0461

Pennsylvania House video cabinet, Cherry, holds up to 30" TV, vcr/dvd, \$750. 931-427-2059

Camper shell for short S-10, \$125; Sunn Model-T amp, \$500; Bach Stradivarius trumpet, \$1,200. 851-8085

Sony Playstation 2, extra controller, 2 memory cards, 5-games, many extras, \$200. 256-353-9020

Dvd recorder, go-video, program scan, used once, tv tuner, model 6740, \$150. 256-509-0387

Jenny Lind baby bed w/Sealy Therapeutic mattress, Cherry, \$90; Barbie Power Wheels Jeep, \$50. 353-0370

Two crypts, Valhalla Memory Gardens, eye-level, side-by-side, Masonic Bldg., price includes fees, \$5,800. 1-860-657-1618

Sony dvd/Hi-Fi, 4-head vcr combo, operator's manual, \$75. 864-2517

Band-Flex in-home gym, 1 yr. old, \$100. 527-1634

Storage building, 12x24, 8' roll-up front door, regular door, two windows, blue w/white trim, \$2,350. 256-759-1494

Bedroom furniture, appliances, coffee & end tables, dinette table, clothes. 520-2802/Ron

Antique upright piano, \$400. 828-6325

1999 Whirlpool free-standing electric range, white, \$125; formal white sofa, \$125; formal green chairs, \$25. 430-6842

Matchbox X-33 "Venture Star" vehicles, numbers 36-40, series 8, complete, individually packaged, \$30. 256-303-3702

Vehicles

2001 Ford Expedition XLT, 74k miles, rear air, 6-disc changer, backup sensors, towing, \$12,900. 895-0577

2001 Ford Ranger XLT SuperCab, 4-door, 4.0/v6, cd/cassette, black, 41.5k miles, \$13,750. 256-347-1444

1964 Chevrolet Biscayne, runs, rebuilt motor/trans., a/c, 327/v8, \$2,500. 256-682-0010

1994 Lincoln Mark VIII, leather, 220k miles, new air ride suspension compressor, \$2,100. 256-520-3874

2003 Nissan Sentra SER-V, 59k miles, 6-speed, 4-door, \$12,500. 828-0496

1989 Ford Taurus, runs well, \$600 firm. 828-5246

Scooter, red, electric and pull start, lights, storage, new, \$200. 534-8414

Kubota L2250 diesel tractor, 2wd, \$5,500. 256-

353-7670 after 5 p.m.

2003 S-10 pickup, straight shift, a/c, 3.7k miles, 2.2 liter, 4 cyl., pewter, \$9,150. 256-355-0302

1998 BMW 740iL, hunter green, tan leather interior, 100,3k miles, new tires, \$16,000. 682-0888

1996 GMC Sierra pickup, extended cab, all-power, bedliner, \$8,500. 256-539-5243

1999 Chevrolet Tahoe SUV, leather w/extras, 120k miles, \$8,200. 828-5602

1998 Acura Integra GSR, 5-speed, 97k miles, red, new tires & battery, one-owner, \$6,750. 859-6134

1996 Windstar, 118k miles, new motor has 40k miles, \$2,500; Suzuki 125 dirt bike, \$450. 828-0631

1996 Chevy S10, 5-speed, green, \$2,000. 256-586-7297

2002 Honda Accord LX, gold, less than 25k miles, \$14,000. 679-1014

2000 Acura 3.2 TL, 74k miles, 4-door, moon-roof, cd, automatic, leather, new tires, \$12,900. 881-8674

Wanted

Baby bed w/mattress and high chair. 883-2918

Reasonably priced white baby furniture set. 256-830-8934

Found

U.S. currency. Call 544-3623 to claim/identify place/amount, etc.

Two ladies rings, Bldg. 4487. Call 544-4676 to claim/identify

Scarf, gray mix, Bldg. 4487. Call 544-4676 to claim/identify

Lost

Earring, turquoise and gold, dangle. If found, call 544-4676

Free

Miniature Pinscher puppy, male, black; found in neighborhood, needs good home. 426-3528

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